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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,736	05/19/2005	Masaaki Takeda	57694US004	7951
32692	7590	04/11/2008		
3M INNOVATIVE PROPERTIES COMPANY				
PO BOX 33427				
ST. PAUL, MN 55133-3427				
EXAMINER				
WATKINS III, WILLIAM P				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
04/11/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com

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Attachment to Advisory Action

1. Applicant's arguments filed 28 March 2008 have been considered but are not found to be persuasive. Regarding applicant's request for clarification of the term "thermo-adhesive sheet" used in the rejection given in section 2 of the detailed portion of the final office action mailed 28 January 2008, the examiner apologizes for the short hand usage of "thermo-adhesive" in place of "thermosetting adhesive sheet" as claimed. The examiner notes that Nakamura et al. teaches an epoxy adhesive that is integrated (cured) by heat and pressure at col. 6, lines 1-20, and that Toriumi et al. teaches formation of bonds between epoxy and other groups as the mechanism for adhesion and calls this "thermosetting" in col. 6, lines 50-60. The examiner thus uses the phrase "thermo-adhesive" to mean thermosetting adhesive in regard to both of these references.

In regard to applicant's argument that there is no teaching of the adhesive sheet being thermo-conductive, because the solder of the references is only taught as forming an electrical connection, the examiner disagrees. Solder is made of low melting metals such as tin and lead that conduct both electricity and heat, as is common knowledge in the electrical

art (see definition of "Soft Solder" in the "Dictionary of Metallurgy", and col. 4, lines 10-12 of Wieloch (U.S. 6,031,723,)), which explicitly states that a solder used in an electrical apparatus is highly conductive of heat). Thus the electrical connection formed by the solder of the references of the combination is taken as being both thermo-conductive and electro-conductive, which meets the instant claim limitations.

Regarding a heat radiating sheet, as noted by applicant, this is disclosed in the specification, but is not claimed and therefore not addressed in the art rejection. Regarding motivation to combine, the adhesive of Toriumi et al. at col. 7, lines 1-10 is taught as allowing low processing temperatures and pressures, which is an advantage that would be useful in Nakamura et al. The temperature limitations were treated at length in section 3 of the detailed portion of the final office action mailed 28 January 2008.

In the event of an appeal, the current final rejection will be maintained. If on appeal applicant challenges the examiner's position that electrical solder is heat conductive, a new supplemental ground of rejection will be made using the above given references that relate to the heat conductivity of electrical solder.

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 571-272-1503. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WW/ww

April 9, 2008

/William P. Watkins III/
Primary Examiner, Art Unit 1794